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EMISSIONS TRADING SCHEME IN KAZAKHSTAN: ADMINISTRATOR CAPABILITY MAPPING PROJECT DRAFT REPORT

CONTRACT NO. EEM-I-00-07-00004-00
TASK ORDER: AID-OAA-TO-11-00041



April 2015

This publication was produced for the United States Agency for International Development. It was prepared by Abt Associates Inc. under the AILEG Project.



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Prepared For
Office of Economic Policy
Bureau of Economic Growth, Education, and Environment
U.S. Agency for International Development

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APRIL 2015

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ACRONYMS

| | |
|-----------------|---|
| AILEG | Analysis and Investment for Low-Emission Growth |
| CERC | Committee for Environmental Regulation and Control |
| ETS | Emissions Trading Scheme |
| EU | European Union |
| FTE | Full-Time Equivalent |
| GHG | Greenhouse Gas |
| GoK | Government of Kazakhstan |
| KCCMP | Kazakhstan Climate Change Mitigation Project |
| KETSA | Kazakhstan ETS Administrator |
| MEP | Ministry of Environment Protection |
| NAP | National Allocation Plan |
| NSW GGAS | New South Wales Greenhouse Gas Reduction Scheme |
| PMR | Partnership for Market Readiness |
| UNFCCC | United Nations Framework Convention on Climate Change |



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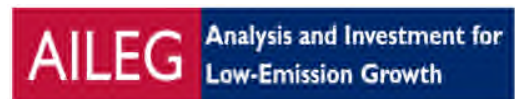


ACKNOWLEDGMENTS

This report was prepared by international experts Mr. Rob Fowler, Ms. Sally Burns, Dr. Alexander Golub, Dr. Michael Westphal and Ms. Lindsay Kohlhoff, under the direction of Dr. Michael I. Westphal, the AILEG Country Manager for Kazakhstan. We would like to acknowledge Ashley King, Environment Officer, formerly of USAID/Central Asian Republics, who was the champion behind this work and provided tremendous support, guidance and advice during two trips to Kazakhstan. We would like to thank all the representatives of the Government of Kazakhstan for their time and engagement, in particular Mr. Gulmira Sergazina, Head of Low Carbon Development Department in the Ministry of Environment Protection; Mr. Sergey Tsoy, Head, Mr. Zhasyl Damu; and their respective staffs. Mr. Amir Yernazarov and Mrs. Olga Bolotova provided exceptional interpretation during numerous meetings. This work benefited from the leadership of Dr. Marcia Trump, the overall AILEG Project Manager. The team is grateful to Dr. Eric Hyman, the AILEG Activity Manager (E3/EP), and Dr. Yoon Lee, the Contracting Officer Representative (E3/EP) for their facilitation of this work. To Dr. Hyman, we appreciate his input into the management and comments on the report for the technical activity. Diane Ferguson provided editing support for this report.



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EXECUTIVE SUMMARY

The Government of Kazakhstan (GoK) enacted legislation for a national greenhouse gas (GHG) emissions trading scheme (ETS). Implementation of the law began its first phase on January 1, 2013, after its passage in the fall of 2012. The scheme covers a most energy and industrial sectors in the Kazakhstan economy and creates a new compliance obligation for almost 178 existing companies, which must report their emissions each year and surrender an appropriate number of emissions units (“quotas”) that have been determined by the government by a given compliance date or face penalties.

USAID has been providing short-term support for the scheme’s implementation while preparing for longer-term programmatic support. An early initiative in the combined support program was to undertake capability mapping for the administrator of the Kazakhstan ETS.

The Low Carbon Development Department within the Kazakhstan Ministry of Environment Protection (MEP) has oversight of the scheme. Zhasyl Damu (a joint stock company owned¹ by MEP) is the ETS Administrator. The Committee for Environmental Regulation and Control (CERC) within MEP is responsible for inspections and enforcement of the ETS under the Kazakhstan Ecological Code.

The **ETS Administrator Capability Mapping Project** had three main objectives:

- Provide a clear picture of the capabilities that the GoK ETS Administrator will need.
- Develop an operating model for the administrator to examine how it can operate internally and interact with other organizations.
- Help MEP and Zhasyl Damu to better understand the timing when different capabilities will be required, the resources that will be needed to successfully operate the ETS from 2014 onward and the risks.

The international experts, which consisted of Dr. Michael Westphal, Mr. Robert Fowler, and Ms. Sally Burns, undertook the following six tasks: review the capabilities of international ETS Administrators and the needs in Kazakhstan; map capabilities and develop an Administrator operating model, prepare and deliver a candidate for the Kazakhstan ETS Administrator (KETSA); refine the concept for the ETS Administrator based on feedback from the GoK, and develop the timeline and milestones for the KETSA. The international experts spent a total of 45 days in Kazakhstan working closely with MEP and Zhasyl Damu staff as well as meeting with a variety of key stakeholders in the Kazakhstan ETS.

The capability mapping process identified eight high-level capabilities, which were then broken down into 38 specific capabilities that the KETSA requires to operate the scheme (Section 4). The team helped develop an operating model and proposed internal structure for the KETSA (Section 5). The recommendations provided in this report covered a range of topics and identified some immediate next steps for MEP, Zhasyl Damu, and donors -- updating the **ETS Legal Package** (work was already

¹ A joint stock company is owned by private investors and the Ministry of Environment Protection.



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underway), creating a robust Verification Framework; supporting the first round of Inspections by CERC, accelerating the Registry Deployment, developing a suite of Technical Guidance Documents, building Internal Capabilities, and clarifying Kazakhstan's role and commitments in the International Negotiations.

This Final Report for the KETSA Capability Mapping Project marks an important point in the ongoing capacity-building support that USAID is providing for the Kazakhstan Ministry of Environment Protection and the ETS Administrator (Zhasyl Damu). USAID supported a short legal review for the ETS in the spring through summer of 2013. At the same time, USAID launched in October 2013 a three-year Kazakhstan Climate Change Mitigation Project (KCCMP) to assist Kazakhstan with implementation of the ETS and the Law on Energy Savings.²

The KCCMP, implemented by a TetraTech consortium under the Clean Energy IDIQ, is focused on assisting the relevant government agencies as well as helping the Kazakhstan business community comply with the new requirements. This report provides some background and context for the project. It then addresses the following topics

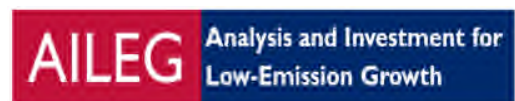
- International experience with ETS administration,
- Capabilities required to administer the Kazakhstan ETS,
- KETSA Capability Maps,
- KETSA Operating Model,
- Timing and intensity of KETSA operations, and
- Recommendations and next steps.

MEP and Zhasyl Damu have an aggressive timeline to set up the institutional, administrative, and regulatory capabilities for the Kazakhstan ETS. The ETS Administrator Capability Mapping Project by the summer of 2013 and the KCCMP are expected to contribute to the creation of efficient and effective administration of a robust ETS in Kazakhstan.

² Begun in 2013, the Kazakhstan Climate Change Mitigation Program (KCCMP) is designed to help Kazakhstan achieve long-term sustained reductions in greenhouse gas emissions intensity. The KCCMP supports the Kazakh government and business community in implementing policies to reduce greenhouse gases at the national and at the corporate level. In addition, the Program provides specialized training to help build the next generation of climate and energy professionals in Kazakhstan.
<http://www.kazccmp.org/PageFiles/WhatIsKCCMP.php>



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I. BACKGROUND AND CONTEXT

Kazakhstan has a population of more than 16 million people. Its economy is the largest in Central Asia and is heavily dependent on the extraction and processing of natural resources, especially oil and gas. In 2009, Kazakhstan emitted 290 million metric tons of carbon dioxide equivalent (CO₂-e), to the equivalent of 6 percent of the European Union's annual output. Kazakhstan has one of the world's highest greenhouse gas emission intensities (emissions per unit of gross domestic product). While its 2009 emissions were 23 percent below 1990 levels, the country's GHG emissions have increased 81 percent over the past 10 years, due in large part to its energy and mining sectors.³ The country's most promising emission reduction opportunities lie in 1) renewable energy projects; 2) fuel switching and energy efficiency; and 3) reducing gas flaring from extraction of coal, oil, and natural gas.⁴

On December 3, 2011, the Kazakhstan ETS was enacted into law through an amendment to the country's Ecological Code. This amendment established a national market mechanism for reduction of GHG emissions that will allow for both national and international trade in emissions allowances and offset credits.⁵ The program's rules were developed over the course of 2012 and approved on December 11, 2012. The two primary organizations involved in the design and coordination of the Kazakhstan ETS are the Low Carbon Development Department within MEP and Zhasyl Damu (a joint stock company owned by MEP). The Committee for Environmental Regulation and Control within MEP is responsible for inspections and enforcement across the entire Ecological Code, including the reporting obligations under the ETS.

Phase I of the Kazakhstan ETS is a one-year trial period, commenced at the beginning of 2013. The length of Phase II is yet to be determined; it may span 2014–2020 or just 2014–2015 with Phase III as 2016–2020. Phase I imposes compliance obligations on 178 companies, and the total cap on emissions from all of these companies is 147 Mt (megatonnes) of CO₂e. This represents 55 percent of the country's total GHG output, and 77 percent of the country's carbon dioxide emissions. The only GHG in Phase I is carbon dioxide, but this is likely to be expanded to include methane and other greenhouse gases in later phases (Table I).

³ Except where noted, the background material on the ETS in Kazakhstan is from Sopher, Peter and Anthony Mansell, "Kazakhstan," *The World's Carbon Markets: A Case Study Guide to Emissions Trading* (Washington, DC: Environmental Defense Fund and the International Emissions Trading Association, May 2013), http://www.ieta.org/assets/Reports/EmissionsTradingAroundTheWorld/edf_ieta_kazakhstan_case_study_may_2013.pdf.

⁴ EBRD. 2010. *Climate Focus, Option Review for Kazakhstan to Participate in the International Carbon Market* (London: European Bank for Reconstruction and Development), <http://www.ebrd.com/downloads/sector/eccc/kaz.pdf>.

⁵ A carbon offset is a reduction in some emissions of carbon dioxide equivalents that compensates for an emission made by another emitter or a different location.



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TABLE 1: THE ETS DESIGN IN KAZAKHSTAN

| ETS Design Element | Kazakhstan |
|--------------------------------|--|
| Sector Coverage | Oil, coal, and gas production; the power sector; mining and metallurgy; chemical industry; agriculture (inclusion currently being debated); and transport (inclusion currently being debated). |
| Emitters/Installations Covered | 178 companies, number of installations to be determined. |
| Emission Coverage | Phase I: About 55% of Kazakhstan's GHG emissions and 77% of CO ₂ . |
| Gases Covered | CO ₂ and perhaps other gases after Phase I. Methane is subject to monitoring and methane reductions are eligible under the domestic offsets regulations. |
| Threshold for Inclusion | 20,000 tCO ₂ e/year. |
| Offsetting Allowed | The following sectors are preferred for domestic offsets: mining and metallurgy; agriculture; housing and communal services; forestry; prevention of land degradation; renewables; processing of municipal and industrial waste; transport; and energy-efficient construction. |
| Trading Periods | Pilot phase in 2013; second phase to be determined (either 2014–2020 or 2014–2015 with a Phase III that spans 2016–2020). |
| Targets | Overall objective is a 7% reduction below 1990 level by 2020 and a 15% reduction by 2025 from the 1992 emissions level. The energy sector's target is a 3% reduction by 2015 compared with 2012 levels. |

Adapted with permission from Peter Sopher and Anthony Mansell, "Kazakhstan," *The World's Carbon Markets: A Case Study Guide to Emissions Trading* (Washington, DC: Environmental Defense Fund and the International Emissions Trading Association, May 2013), http://www.ieta.org/assets/Reports/EmissionsTradingAroundTheWorld/edf_ieta_kazakhstan_case_study_may_2013.pdf.

The ETS covers power generation, mining and metallurgical activities, oil and gas extraction and processing, and chemicals manufacturing. Each company that has a compliance obligation under the ETS must ensure that it has enough emissions units ("quotas" in the Kazakhstan terminology, "allowances" in the European Union (EU) to match its actual GHG emissions each calendar year. Companies will receive an allotment of quotas for free via the National Allocation Plan (NAP) and can buy additional quotas from other companies via an exchange-based trading platform. Some quotas will be auctioned into the market by Zhasyl Damu, allowing new installations or expanded installations to purchase their necessary quotas. If a company fails to surrender sufficient quotas to the ETS Administrator by the prescribed compliance date, penalties are imposed for non-compliance.

The Kazakhstan ETS is designed so that, in the early years, emitting companies will receive most of their needed quotas for free. For the 2013 compliance year, the free allocations are based on emissions reports for the 2010 calendar year. For the 2014 compliance year, emissions in calendar year 2012 will be the basis for allocations. The detailed approach to calculating how many free quotas each company receives from 2014 onward will soon be released in the NAP for Phase II. An annual reserve of quotas is also being created in each NAP to provide the ETS Administrator with the ability to buy and sell in the market to stabilize market prices. This is a feature of the Kazakhstan ETS that is not part of the EU ETS, but is increasingly popular in the design of emerging carbon markets in China, the USA, and elsewhere given that it allows flexibility for the market to respond to changing demand and supply.

The targets in the Kazakhstan ETS are an important part of the country's voluntary emission reduction commitments. Kazakhstan has promised to reduce its 2013–2020 emissions by 5 percent relative to 1990 as part of the Kyoto Protocol. Moreover, Kazakhstan has committed domestically to reducing its emissions by 7 percent below 1990 levels by 2020 and by 15 percent, below 1992 levels by 2025 (39



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MtCO_{2e}). For the long term, Kazakhstan's domestic goal is 25 percent, below 1992 levels by 2050 (65 MtCO_{2e}).

I.1. USAID SUPPORT EFFORTS

Detailed information on the situation in Kazakhstan, the U.S. Government's efforts to promote and support low carbon and green development in Kazakhstan, and the basis for supporting the implementation of the ETS have been compiled in a series of USAID reports produced by the scoping studies undertaken in early 2012 to identify appropriate levels and types of support for Kazakhstan's adoption of a low-emission development strategy.⁶

In the second half of 2012, USAID contracted with Essential Change Advisory Services for a more detailed study of the readiness of the GoK and the business community to implement the ETS legislation.⁷ This Market Readiness Study identified a range of support activities and suggested that they could be split into two parallel programs -- an Administrator Readiness Program and a Business Readiness Program. The programs were designed to be undertaken over the first three years of the ETS to accelerate its implementation and strengthen its integrity.

The Administrator Readiness Program was designed to begin with Capability Mapping and then focus on Capacity Development. These initiatives target three particular aspects of the administrator's functions and operations: the verification framework, registry and administration systems, and technical guidance. The Business Readiness Program called for three parallel activities: 1) streamlining for business reporting requirements, 2) understanding the implications of the Kazakhstan ETS for business, and 3) financial accounting and auditing.

The Market Readiness Study also identified immediate needs for support. These near-term issues gave USAID the opportunity to provide much-needed assistance to MEP and Zhasyl Damu while it worked on the development, tendering, contracting, and commencement of longer-term support. This approach to continuity of support is highly valued by the staff at MEP and Zhasyl Damu.

USAID has begun the procurement process for three years of support for the implementation of the ETS as well as the energy conservation law in Kazakhstan under the Kazakhstan Climate Change Mitigation Project (KCCMP), which started in October 2013.

I.2. THE ETS ADMINISTRATOR CAPABILITY MAPPING PROJECT

The ETS Administrator Capability Mapping Project was the first activity under the Administrator Readiness Program. The task focused on identifying, articulating, and mapping the capabilities required to administer the ETS in Kazakhstan.

⁶ S. Hsu et al., *Low Emission Development Strategy (LEDS): Kazakhstan Opportunities and Options Report* (Washington, DC: USAID, 2012), internal report.

⁷ Rob Fowler, *Building Capacity for Kazakhstan's Emissions Trading Scheme*, Essential Change Advisory Services, final report under PO #AG-3187-D-12-0095 (Washington, DC: USAID, 2013).



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The capability mapping process helped MEP and Zhasyl Damu understand the risks of the ETS better and the number of staff and contractors required for establishment and operations.

The ETS Administrator Capability Mapping Project involved six tasks

1. Review the capabilities of international ETS Administrators,
2. Revise the set of capabilities based on the Kazakhstan country context,
3. Map capabilities and develop an Administrator operating model,
4. Prepare and deliver a candidate for the KETSA,
5. Refine the concept for the ETS Administrator based on feedback from the GoK, and
6. Develop the timeline and milestones for the KETSA.

During this project, three international experts spent a total of 45 days in Kazakhstan working closely with MEP and Zhasyl Damu and meeting with other ETS stakeholders..



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2. INTERNATIONAL EXPERIENCE WITH ETS ADMINISTRATION

Carbon markets and emissions trading have been in place in various parts of the world officially starting in the European Union for just over a decade. . This Capability Mapping Project harvested lessons from a variety of existing and planned schemes to inform the ETS team at MEP and Zhasyl Damu about their options. The international experts shared examples and insights from the EU ETS, the New South Wales Greenhouse Gas Reduction Scheme (NSW GGAS), the Australian national scheme, the Gold Standard, the Californian scheme, the New Zealand scheme, the Chinese pilot schemes, and the Kyoto Mechanisms.^{8, 9, 10, 11, 12, 13, 14, 15}

While there is considerable research material on the design of carbon markets and emissions trading schemes, less work has been done to document the lessons learned from the implementation of these mechanisms. To address this gap, the international experts facilitated direct interaction between a regulator in Australia and the ETS team at Zhasyl Damu and MEP (with real-time translations between Russian and English). Further opportunities have been created for discussions with administrators in California, Shanghai, and Switzerland (the Gold Standard) and for continued discussions with Australia.

Discussions of lessons learned were complemented with sharing of documents and templates Zhasyl Damu has received templates and guidance from the Gold Standard that helped define its approach to performance management of verifiers. This will allow the new KETSA processes and work steps to be set up more quickly by leveraging work done elsewhere on detailed administrative issues. World Bank's Partnership for Market Readiness (PMR) collaborated with the project from the beginning.¹⁶ In May 2013, MEP and Zhasyl Damu staff presented the initial results of the analysis to the PMR Assembly in Barcelona, Spain. Ongoing dialogues via the PMR will provide useful insights for the Kazakhstan ETS team and there is some potential for direct technical assistance from the PMR to support staffing needs, barriers to capacity development and training options of MEP and Zhasyl Damu's work.

⁸ Further information on the EU ETS is available at http://ec.europa.eu/clima/policies/ets/index_en.htm.

⁹ Further information on the Australian Carbon Pricing Mechanism is available at <http://www.cleanenergyregulator.gov.au/Carbon-Pricing-Mechanism/Pages/default.aspx>.

¹⁰ Further information on the Gold Standard is available at <http://www.cdmgoldstandard.org/>.

¹¹ Further information on the NSW GGAS is available at <http://www.greenhousegas.nsw.gov.au/>.

¹² Further information on the Californian Cap and Trade system is available at <http://www.arb.ca.gov/cc/capandtrade/capandtrade.htm>.

¹³ Further information on the New Zealand Emissions Trading Scheme is available at <http://www.climatechange.govt.nz/emissions-trading-scheme/>.

¹⁴ Further information on the various Chinese pilot emissions trading schemes is available at http://www.ieta.org/assets/Reports/EmissionsTradingAroundTheWorld/china_casestudy_june2013.pdf.

¹⁵ Further information on the Kyoto Mechanisms is available at http://unfccc.int/kyoto_protocol/mechanisms/items/2998.php.

¹⁶ Further information on the Partnership for Market Readiness is available at <http://www.thepmr.org/>.



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3. CAPABILITIES REQUIRED TO ADMINISTER THE KAZAKHSTAN ETS

The experience with administration of emissions trading schemes has shown that there are some general capabilities as well as specific capabilities tailored to the country context, legislative requirements, and objectives.

The international experts reviewed Kazakhstan's ETS legislation and regulations, and developed an initial list of requested capabilities and compared it to the capabilities identified for other ETS administrators resulting from the April country meetings. The resulting list was long and provided useful insight into the wide variety of functions that the KETSA must perform. A summary of the major requests are:

- **Assistance with International Matters:** including reviewing existing documentation on Kazakhstan's involvement in the Kyoto Protocol and providing commentary, reviewing a formal legal opinion being provided by an English law firm and providing commentary, providing support for Kazakhstan's negotiations in Bonn (with potential support in Bonn in June).
- **The Partnership for Market Readiness (PMR) application:** assist MEP draft an application to participate in the World Bank's PMR. As the Expression of Interest phase has already been filled with the maximum number of implementing countries, this process will also involve sourcing support from one of the donor countries to provide additional funding for Kazakhstan's involvement. The next PMR meeting is in Barcelona on 26-28 May 2013.
- **Draft Law Amendments:** Based on our initial weeks here GDC and MEP are drafting amendments to existing laws to try to resolve issues that have arisen or will arise based on the way the law was originally drafted. This task involves reviewing these amendments line by line in the context of the original law and providing input on the content and drafting. Attempts will also be made to resolve conflicts that exist between the various levels of the law.
- **Training on verification procedures and reviewing the verification reports:** Provide training for GDC staff on what verification involves, and how to review a verification report to see what has been found in the verification process. This training is available, and will be very useful for GDC given the number of company reports and verification reports which are coming in.

This process made it clear that many gaps exist in the current laws and regulations for the Kazakhstan ETS. Some important ETS administration capabilities were not addressed, such as online reporting. These omissions and drafting errors will create some very real challenges for the KETSA until the legislation and regulations can be amended. Therefore, in anticipation of appropriate changes in the



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Kazakhstan ETS legal package, the capability list in this report is based on the current requirements and recommended changes.

The other key insights from the capability mapping process was that there was significant overlap of requirements and good opportunities for more efficient use of the KETSA's human resources and infrastructure. The project helped to develop consensus on what is required of the ETS Administrator before examining the issues of “who” and “how”. Examples of the capacity needs included

- Receipt of submitted documents,
- Data compilation,
- Verification of reports,
- Storage of documents,
- Provision of technical guidance,
- Accreditation of service providers,
- Interpretation of legal requirements,
- Management of registry account access,¹⁷
- Issuance of free allowances,
- Approval of offset methodologies,
- Detection of incorrect reporting,
- Creation of compliance briefs, and
- Enforcement of penalties.

All of these capabilities will eventually be required for the ETS. However, some will not be required until the scheme is operational, while others are critical for the pilot period in 2013.

¹⁷ An ETS registry is a database that records quotas, or allowances, allocated to and held in different accounts (e.g., government, companies); the movement of quotas between accounts; annual verified emissions of installations; and annual compliance status of installations.



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4. KETSA CAPABILITY MAPS

The conclusion of the analysis resulted in designing a schematic in collaboration with MEP, KETSA and other stakeholder where eight high-level capabilities were identified for the Kazakhstan ETS Administrator (Figure 1). Each of these high-level capabilities was broken down further into specific capabilities i (Figure 2 to



Figure 9). In total, the mapping process identified 38 specific capabilities (Figure 10).

Each of the capability maps includes business process, administrative decision making, staff judgment, and resources. While some of the capabilities are likely to be easy to manage, others will emerge as the ETS is implemented in a regular compliance cycle.

FIGURE 1: HIGH-LEVEL CAPABILITIES FOR THE KAZAKHSTAN ETS ADMINISTRATOR

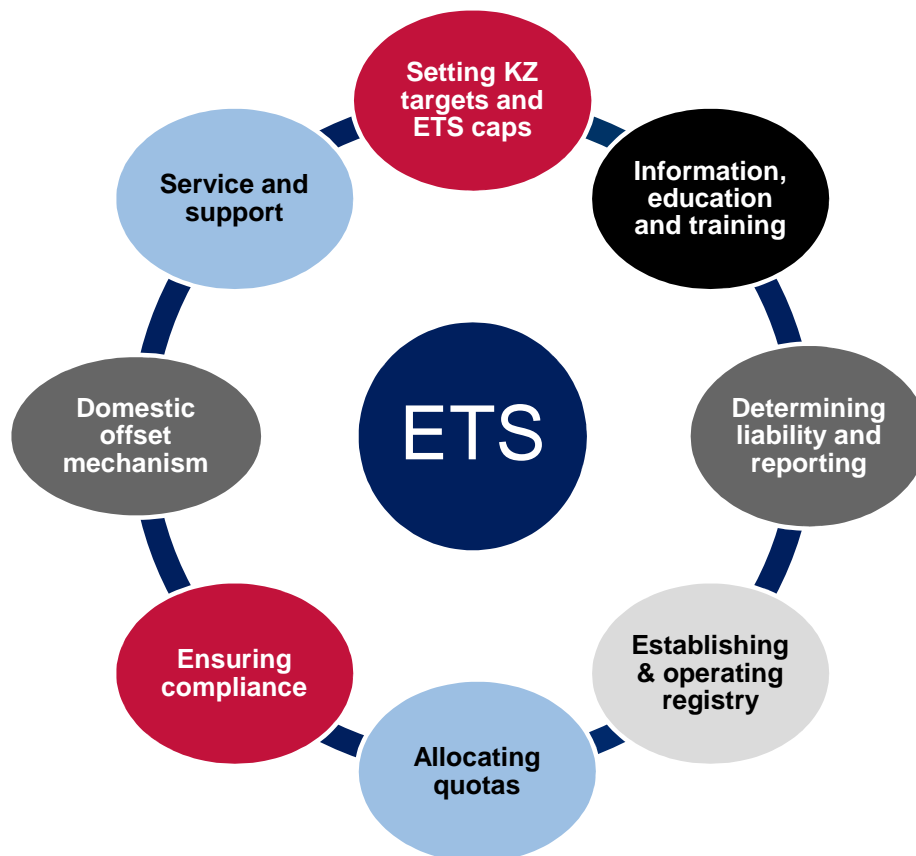




FIGURE 2: SPECIFIC CAPABILITIES UNDER SETTING KAZAKHSTAN'S TARGETS AND ETS CAPS

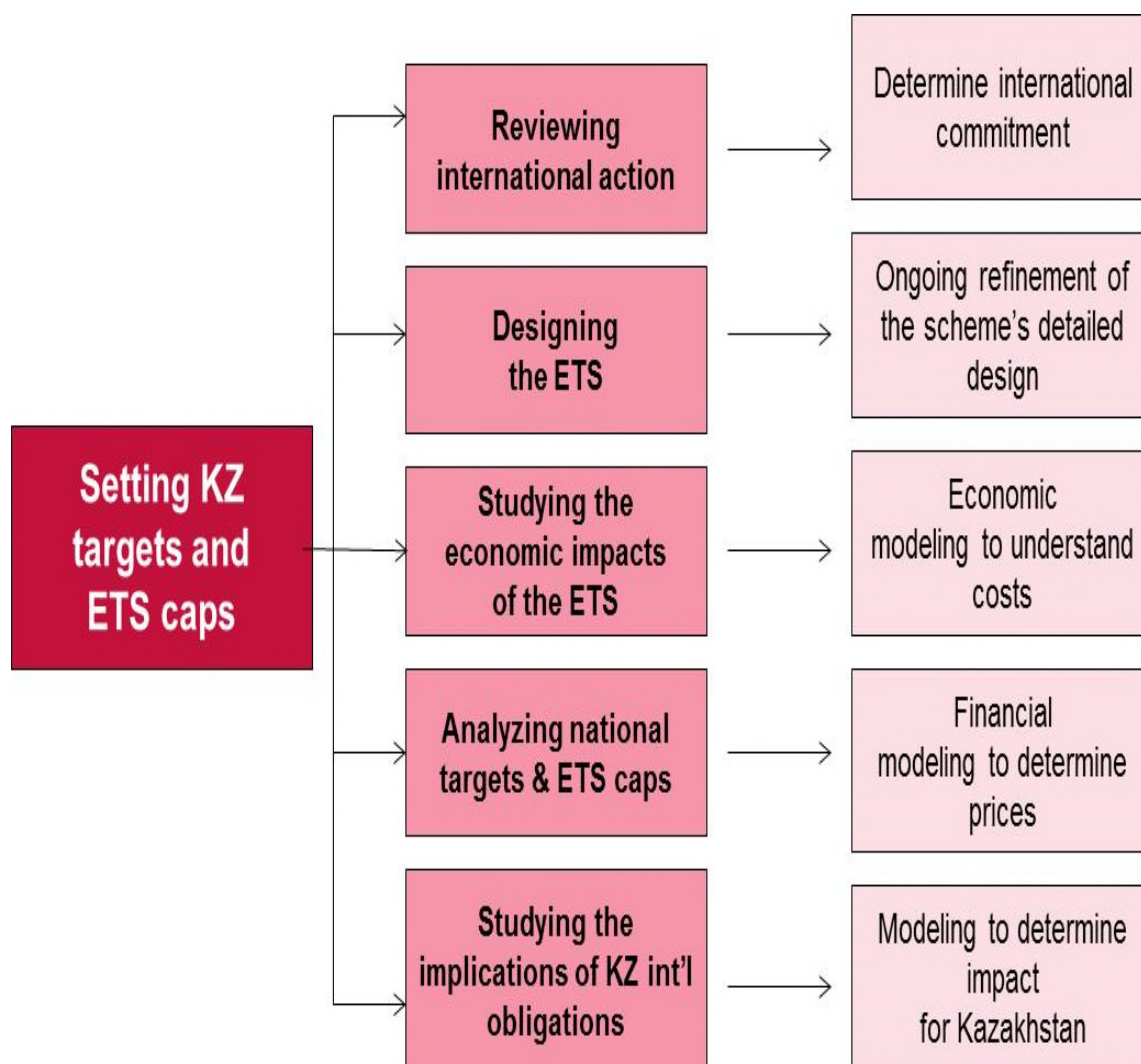




FIGURE 3: SPECIFIC CAPABILITIES UNDER INFORMATION, EDUCATION, AND TRAINING

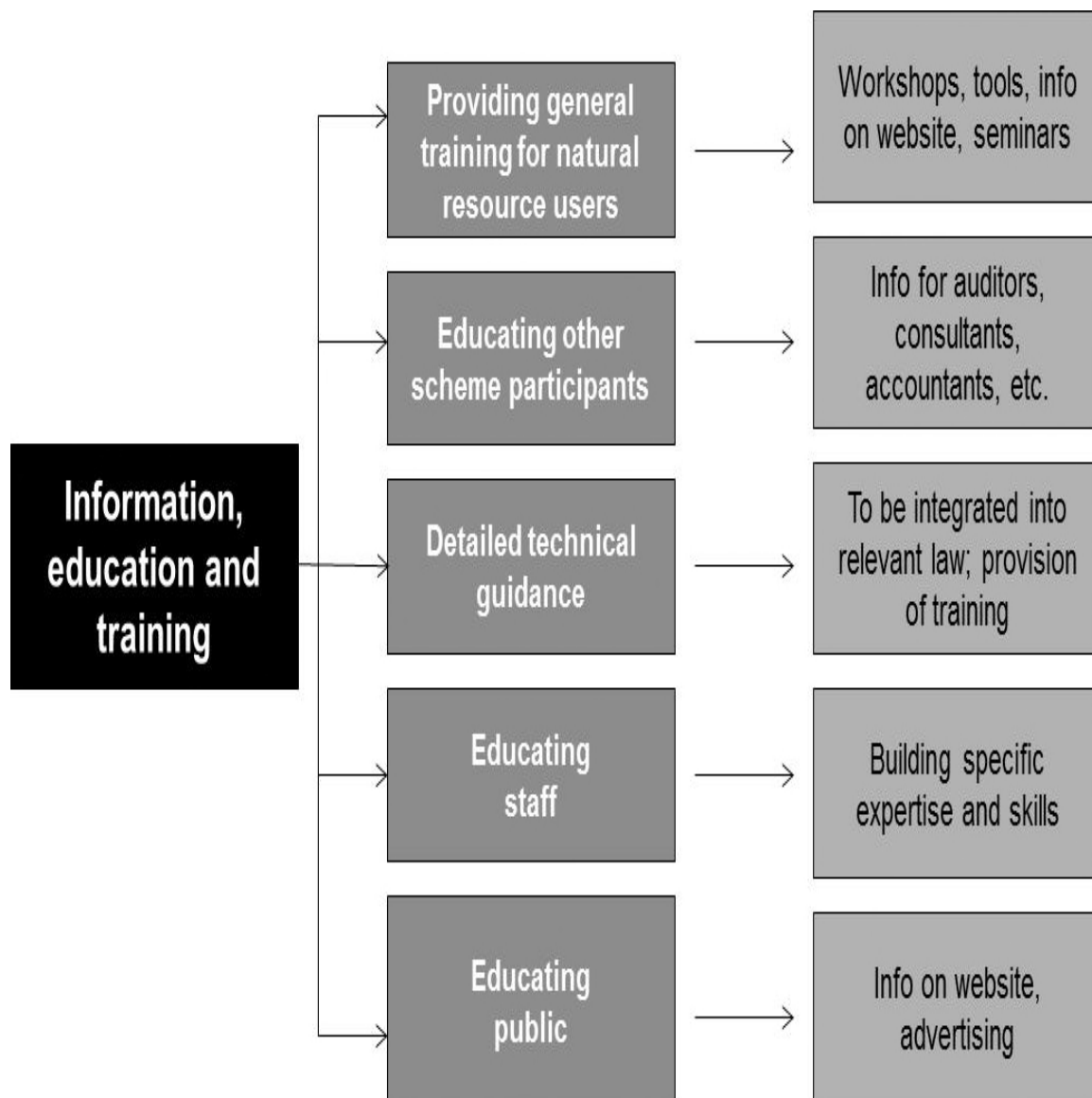




FIGURE 4: SPECIFIC CAPABILITIES UNDER DETERMINATIONS OF LIABILITY AND REPORTING

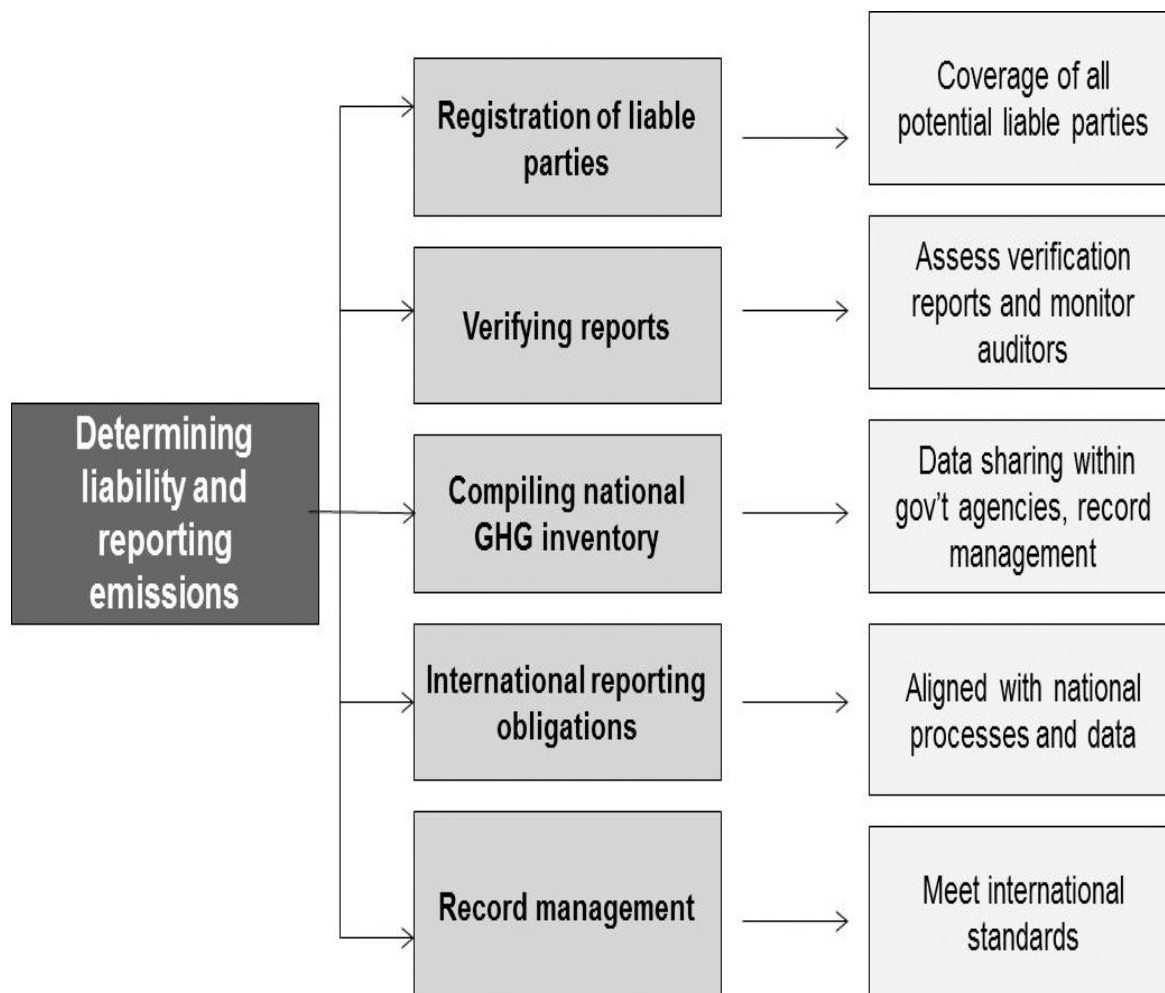




FIGURE 5: SPECIFIC CAPABILITIES UNDER ESTABLISHMENT AND OPERATION OF A REGISTRY

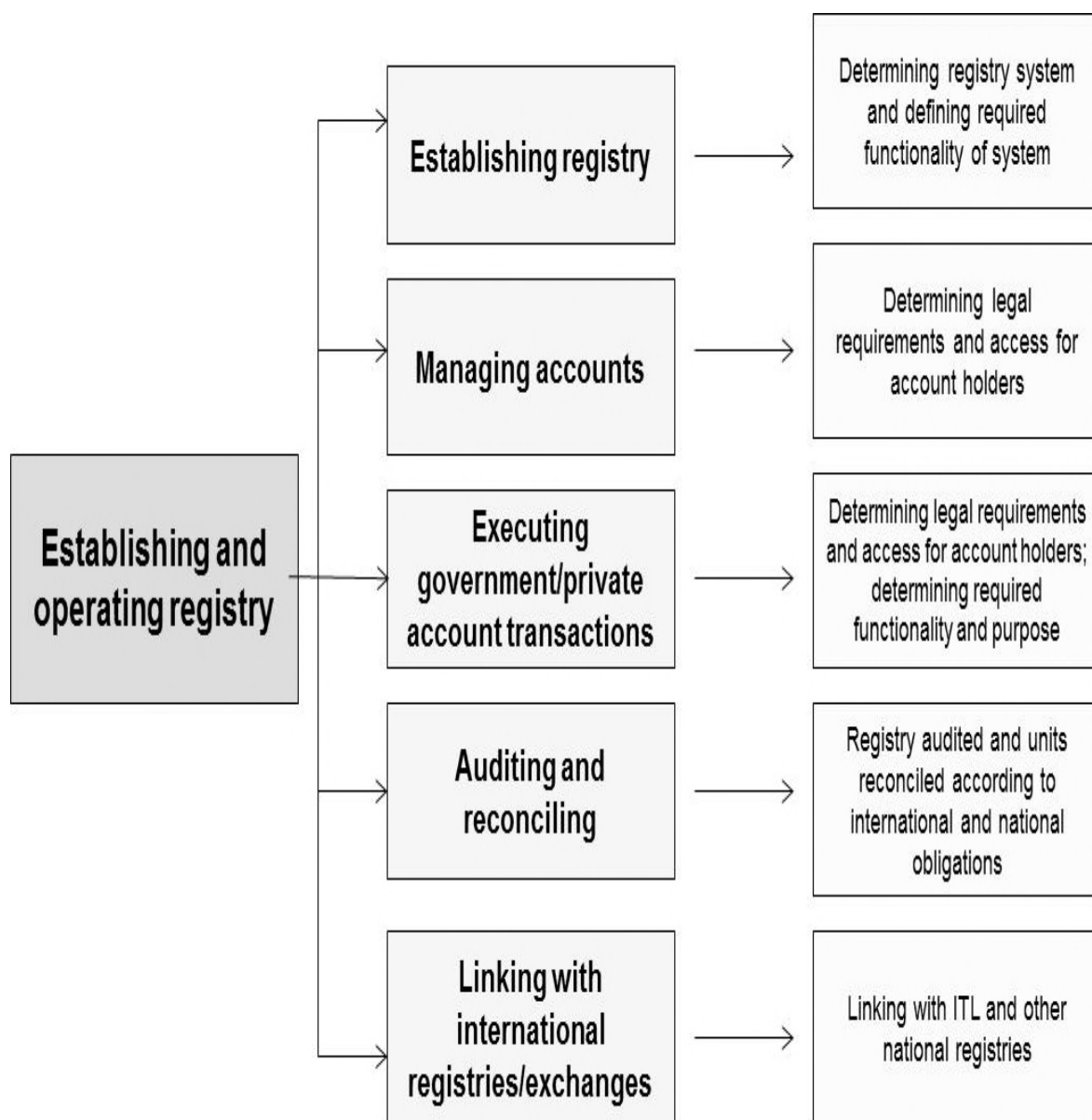




FIGURE 6: SPECIFIC CAPABILITIES UNDER ALLOCATION OF QUOTAS

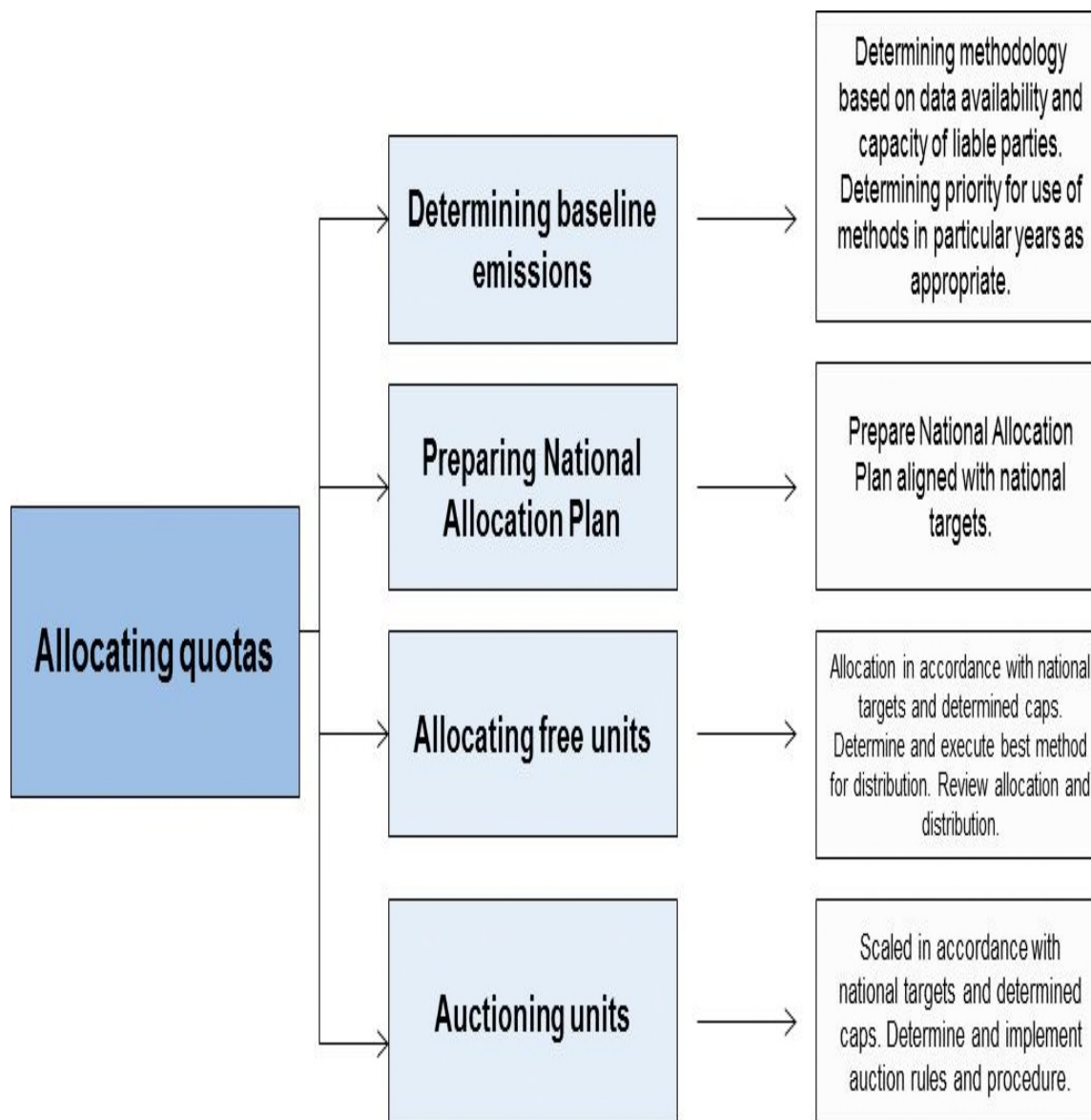




FIGURE 7: SPECIFIC CAPABILITIES UNDER ENSURING COMPLIANCE

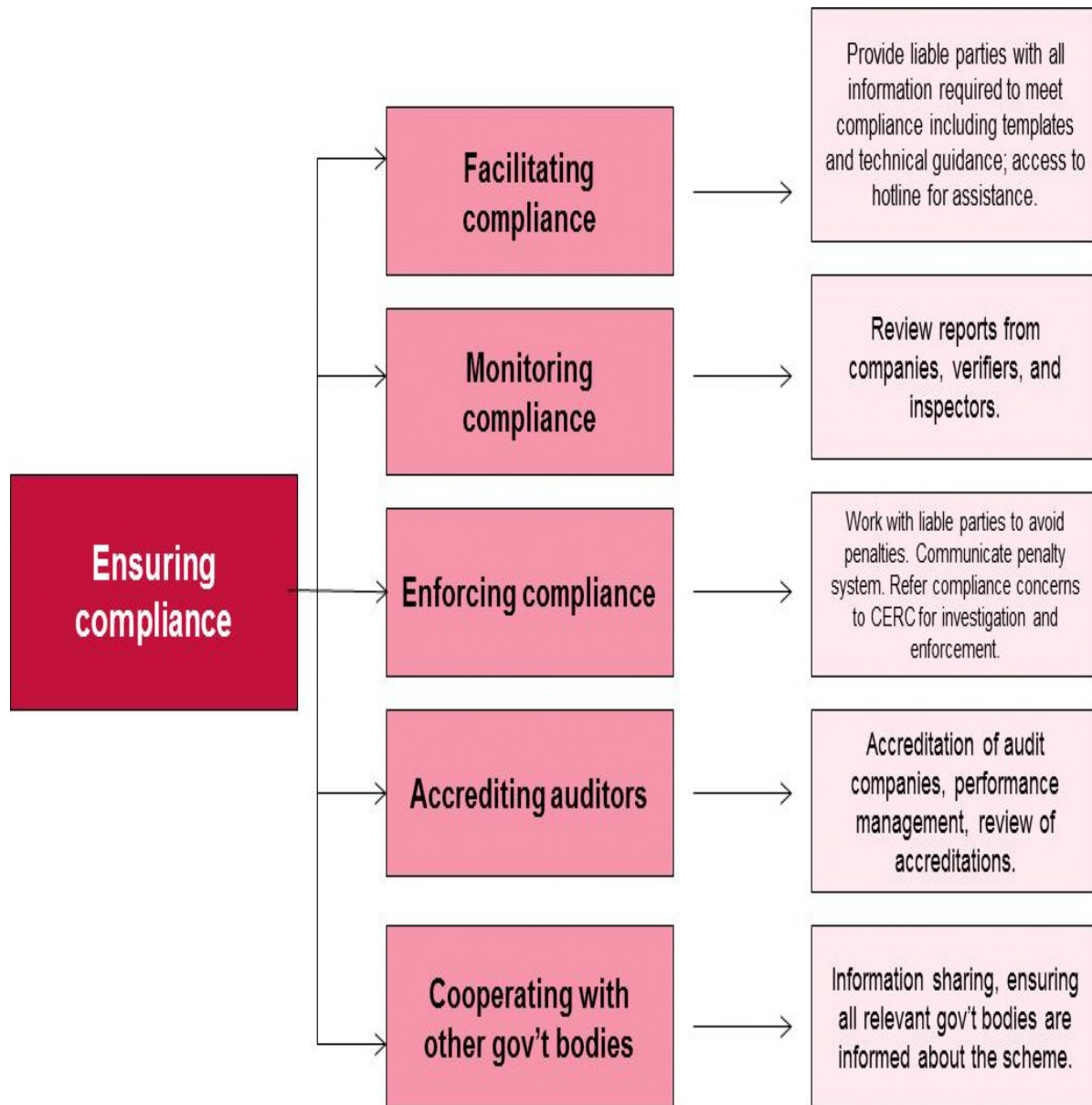




FIGURE 8: SPECIFIC CAPABILITIES UNDER DOMESTIC CREDITING MECHANISM

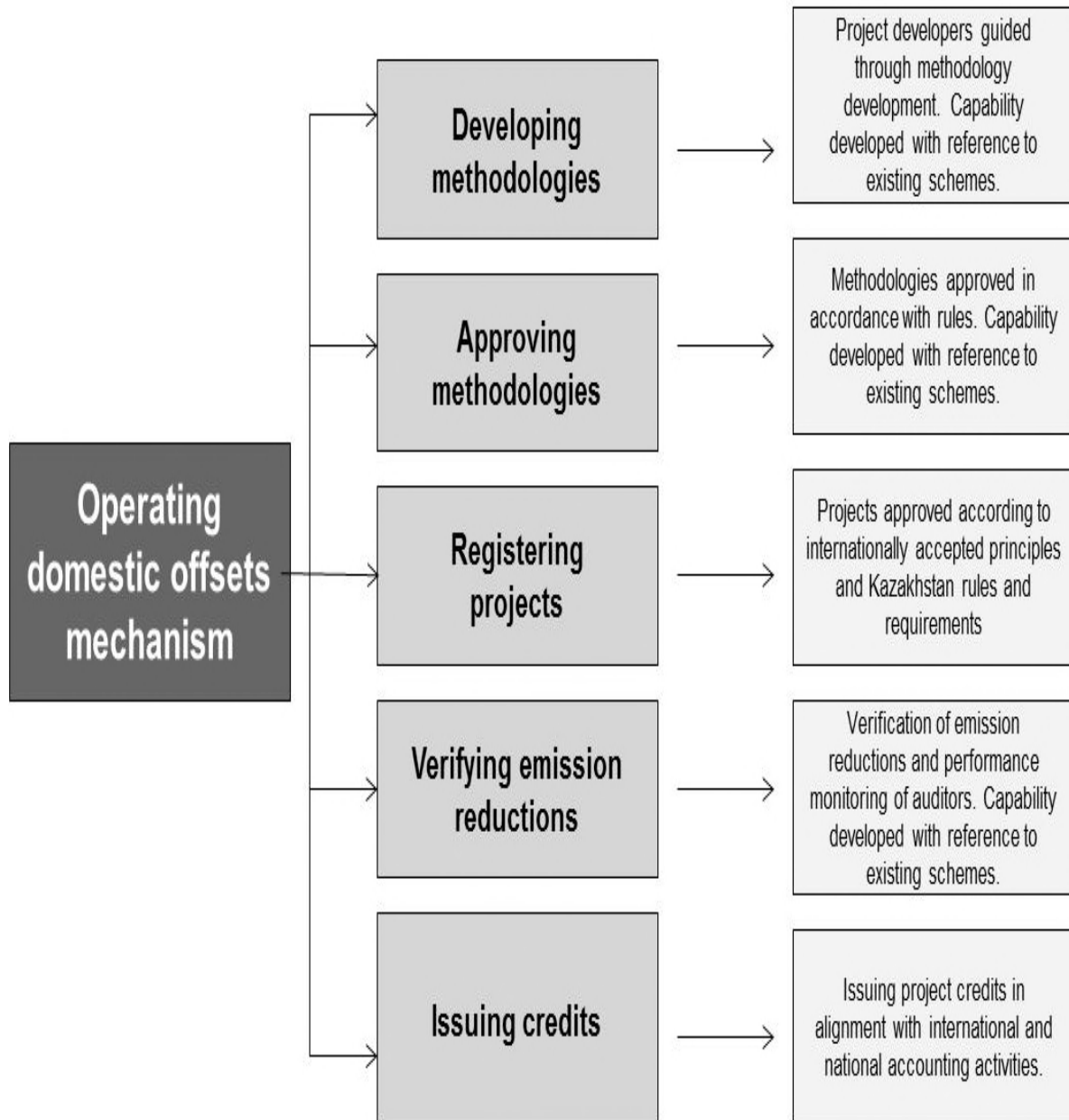




FIGURE 9: SPECIFIC CAPABILITIES UNDER SERVICE AND SUPPORT

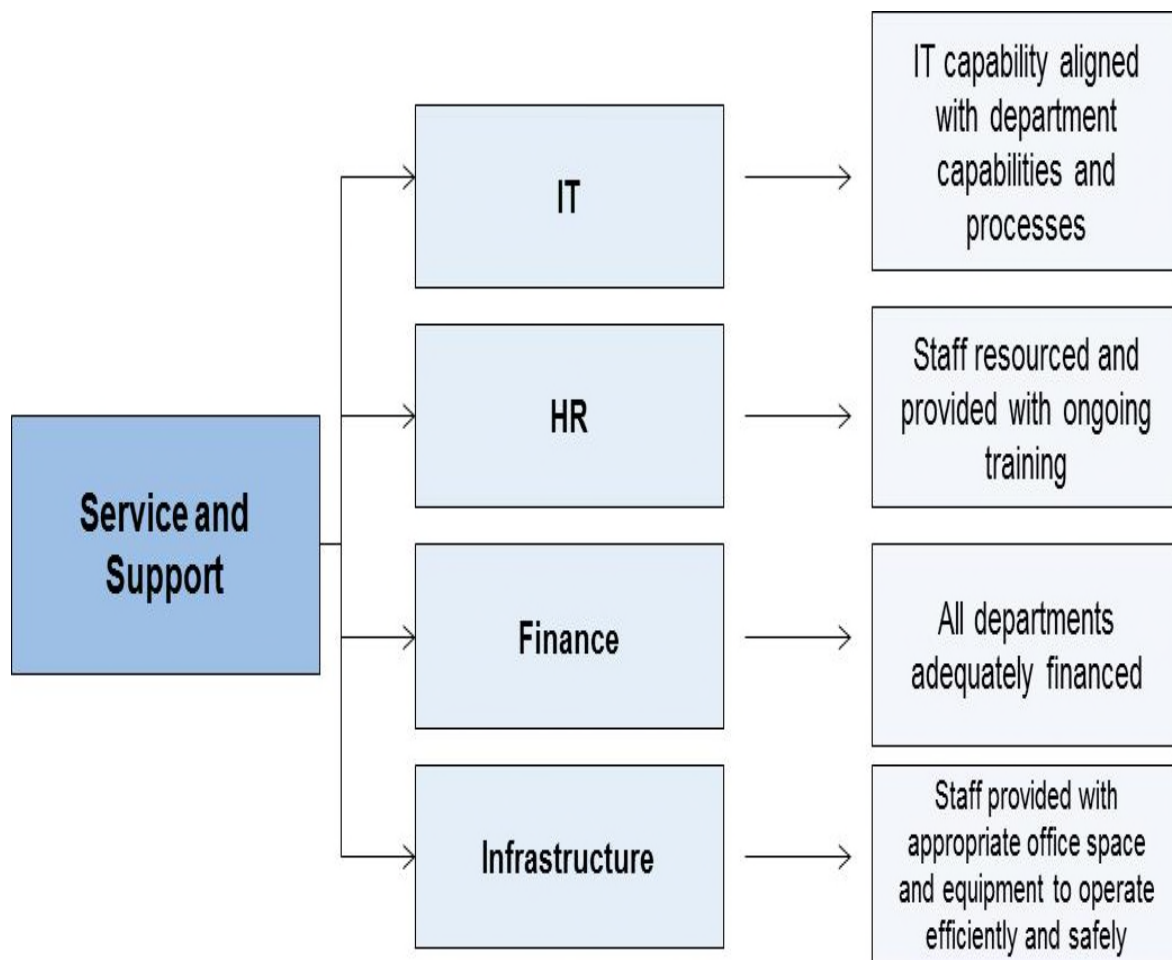
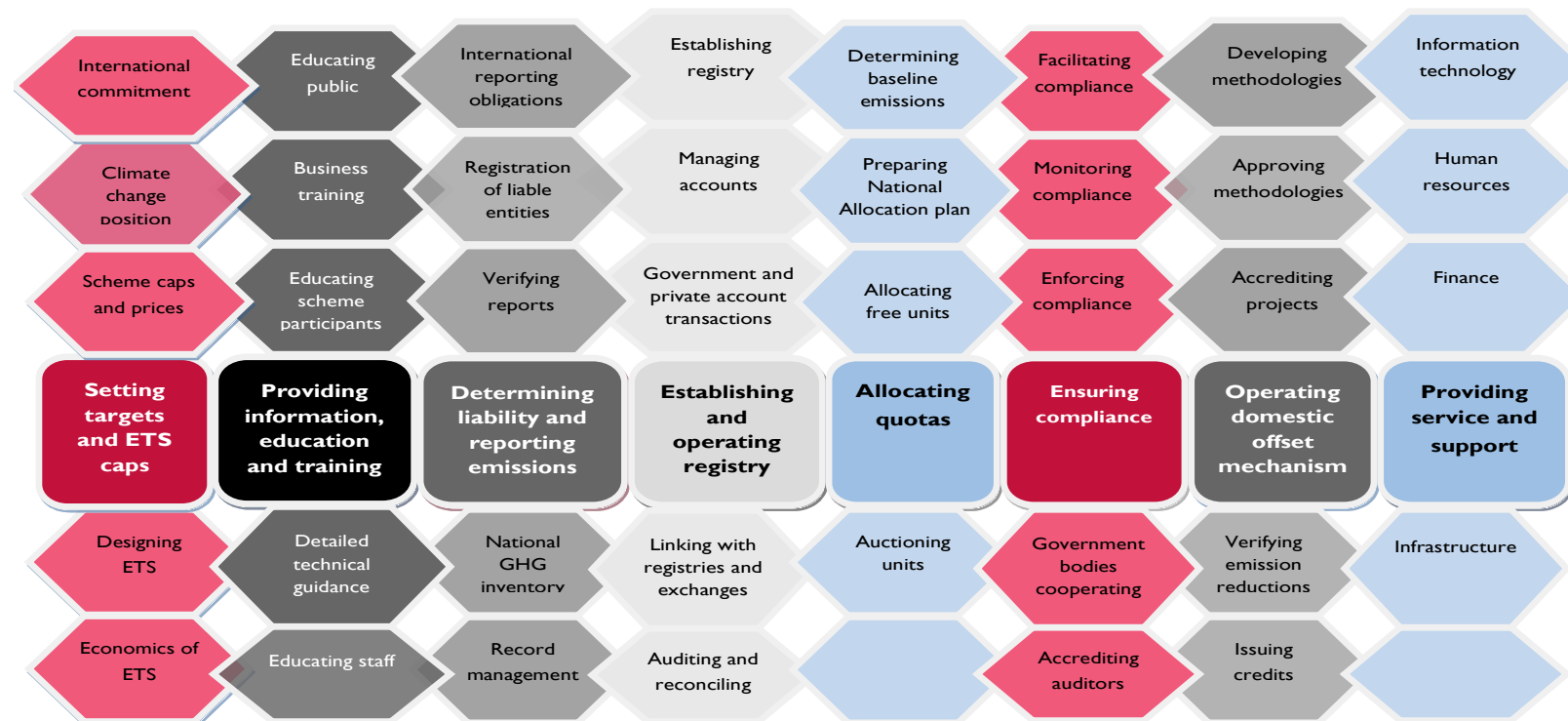




FIGURE 10: ALL PROPOSED CAPABILITIES MAPPED





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5. KETSA OPERATING MODEL

The operating model shows the internal structure and operations of the KETSA and provides a guide to the KETSA's interactions with other organizations. However, the KETSA is not a stand-alone entity. The organization charged with administering the Kazakhstan ETS is part of a larger organization Zhasyl Damu, which is wholly owned by the Ministry of Environment Protection. While the KETSA is not a separate body, its mandate and its role within the ETS are clearly defined.

5.1. INTERNAL OPERATIONS AND PROPOSED TEAM STRUCTURE

The consultants proposed that KETSA arrange itself into seven internal teams. The specific functions of these teams would vary across the annual compliance cycle, as would the level of resources needed. Each Team would need at least one person to be team leader for the full year, so that there is continuity and readiness when the team needs to shift its focus or increase its activities. The proposed seven internal teams are

- Policy and Design team,
- Reporting, Inventory and Standards team,
- Verification, Compliance and Enforcement team,
- Allocations, Auctions and Market Oversight team,
- Registry and Systems team,
- Communications and Outreach team, and
- Management and Support team.

Each specific capability contained in the Capability Maps (Figure 2 to Figure 10) can be allocated to one of these teams. Table 2 lists the specific capability requirements for the seven teams.



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TABLE 2: KETSA TEAMS AND CAPABILITIES

| KETSA Team | Team Capabilities |
|---|--|
| Policy and Design Team | <ul style="list-style-type: none"> • Determination of international commitment • Ongoing refinement of the scheme's detailed design • Modeling to understand costs, prices, and impact on Kazakhstan |
| Reporting, Inventory and Standards Team | <ul style="list-style-type: none"> • Detailed technical guidance for liable entities, verifiers, experts, consultants, and other internal Teams • Registration of liable entities • Records management and data collation • Reviewing reports from companies, verifiers, and inspectors • Development of methods for crediting of domestic projects • Registration of projects under the domestic offsets mechanism • Review of reports from offsets project proponents and verifiers • National processes and data for international reporting obligations • Compilation of national GHG inventory through data sharing within government agencies |
| Verification, Compliance and Enforcement Team | <ul style="list-style-type: none"> • Assessing verification reports and monitor verifier performance • Working with MEP Low Carbon Development Department on accreditation of verification companies, performance management, and review of accreditations • Identifying non-compliance risks among the liable entities and their advisors; informing other internal Teams • Working with liable entities to be in compliance and therefore avoid penalties • Communicating the penalties for non-compliance • Referring compliance concerns to CERC for investigation and enforcement |
| Allocations, Auctions and Market Oversight Team | <ul style="list-style-type: none"> • Determining baseline emissions • Preparing the National Allocation Plan • Allocating free emission rights to natural resource users • Auctioning emission rights, including determining and implementing the auction rules and procedures • Performing price monitoring and market observation |
| Registry and Systems Team | <ul style="list-style-type: none"> • Records management • Determining the registry system and defining the required functionality of the system (domestic ETS as well as for international links) • Managing registry accounts (legal requirements and access for users) • Executing government and private account transactions on the registry based on the NAP and with carbon exchanges (auctions and clearing transactions) • Issuing credits to accounts under the domestic offsets mechanism • Auditing and reconciling the registry in line with international and national obligations • Linking with international registries/exchanges |
| Communications and Outreach Team | <ul style="list-style-type: none"> • Workshops, tools, information on website, seminars for natural resource users across the entire operations and requirements of the ETS • Information for auditors, consultants, accountants, and other specialists • Information for the public through website, advertising, media, and other channels • Facilitating compliance by providing liable entities with all the required information (including templates, technical guidance, and access to hotline for assistance) • Information sharing to ensure that all relevant government bodies are informed about the ETS |



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| KETSA Team | Team Capabilities |
|-----------------------------|---|
| Management and Support Team | <ul style="list-style-type: none">• Staff education to build specific expertise and skills• Provision of IT capability aligned with department capabilities and processes• Deployment of resources so that staff are properly supported and provided with ongoing training• Financing of the organization• Provision of appropriate infrastructure, office space, and equipment so the staff can operate efficiently and safely |

5.2. INTERACTIONS WITH OTHER ORGANIZATIONS

The Kazakhstan greenhouse gas ETS involves a variety of participants, service providers, and other stakeholders. The KETSA will interact with many different groups (Figure 11).

The KETSA's primary interaction is with natural resource users who must participate in the ETS. These companies have an obligation to interact with the KETSA and are expecting clarity and consistency on the rules and requirements. Exchanges, other carbon markets, and international organizations all have key roles to play. Close communication with verifiers, experts, and industry associations are important.

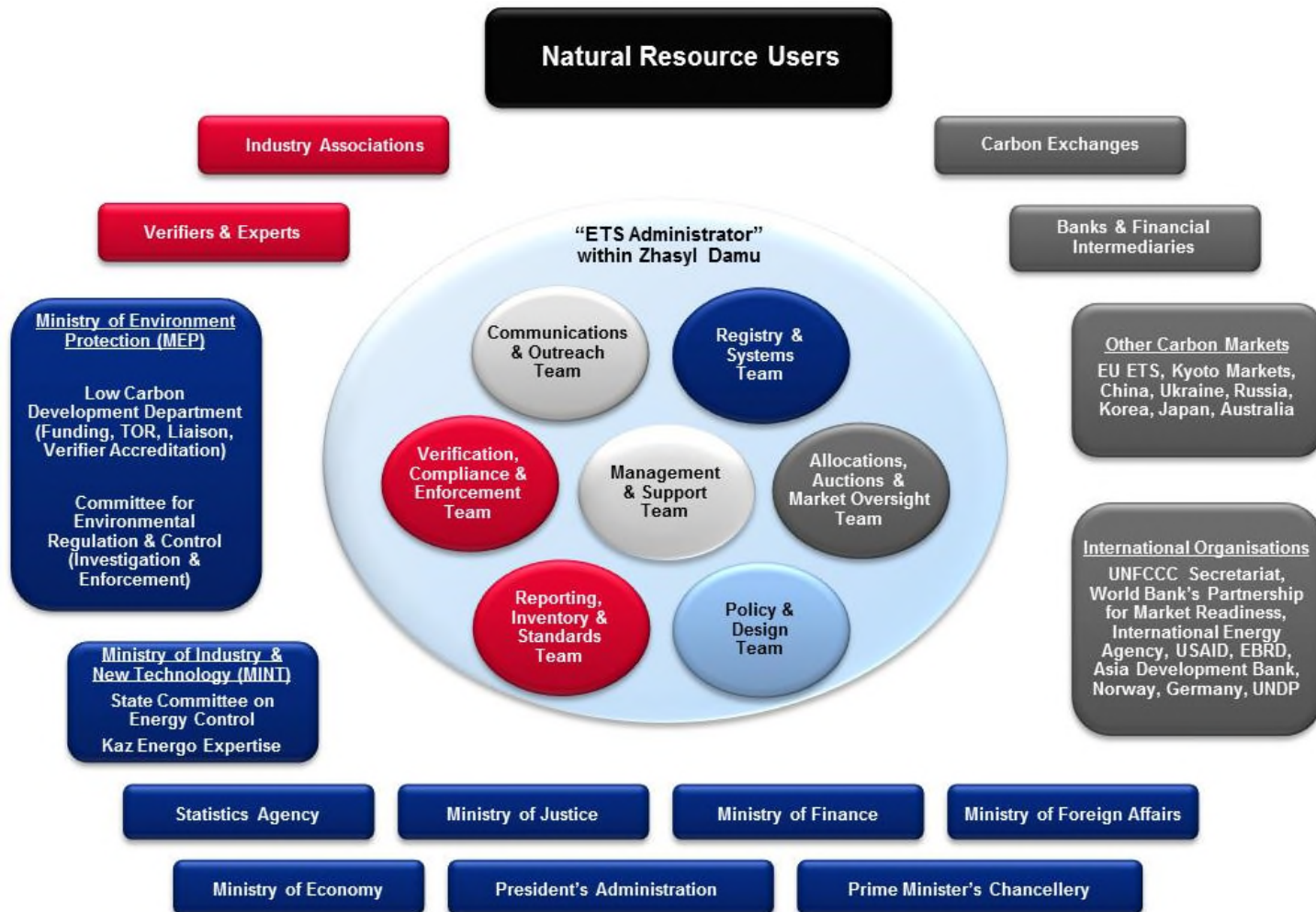
Key government relationships are with the Low Carbon Development Department, and CERC within the MEP. Other ministries and GoK agencies have smaller roles, but are crucial at certain times (for example, liaising with the Ministry of Justice is essential when seeking amendments of the ETS regulations).



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FIGURE 11: KETSA OPERATING MODEL





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6. TIMING AND INTENSITY OF KETSA OPERATIONS

The compliance timeline for the Kazakhstan ETS will be the key driver for KETSAs once the emission trading scheme is operational. However, there are also other drivers of timing and intensity to consider. The **compliance timeline** and **implementation timeline** will affect the challenges that KETSA will face through 2015. .

The **compliance timeline** refers to the legislated dates and milestones for company reporting requirements, decisions on the NAP, quota surrender by companies, registration of new installations, and decisions on domestic offset projects, among others. It is the basis for KETSA's annual cycle and will influence decisions on resource allocation and staff tasking once the scheme is closer to steady-state operations.

The **implementation timeline** is the sequence of efforts and initiatives to build and activate the KETSA capabilities that are mapped out in this report. It is a dynamic and will inevitably shift as implementation proceeds. The implementation timeline includes establishment of the online registry system, provision of more detailed technical guidance, preparation of the package of amendments for the ETS laws and regulations, creation of a robust verification framework, and various capacity development tasks.

MEP, Zhasyl Damu, and the USAID support team will work together on both of these timelines during the USAID-supported legislative review project. This will involve a series of detailed discussions and group workshops throughout the fall of 2013 on how the proposed amendments may affect the ETS timelines and resource requirements for KETSA. The timelines will be developed to ensure that MEP and Zhasyl Damu have a clear picture of how the scheme is likely to operate while it is being built over a two to three year period.

Further work will also be required to better define the intensity of KETSA's activities, appropriate staffing levels for the teams, and the way these activities are likely to vary across the compliance year. This consideration of appropriate full-time, part-time and contractor staffing levels must consider the likely timing for implementation of key components of the ETS as well as the ongoing annual work cycle. This detailed analysis of staffing levels should be part of an integrated process to examine the human resources required, timing of deployment, and people who will fill the staff and contractor roles within KETSA's internal teams.

KETSA will need to use a combination of existing Zhasyl Damu staff and contractors, new local staff and contractors, and international experts to implement and operate the Emissions Trading System. With a capable group of professionals, it may be possible for KETSA to have as few as 20 to 35 full-time equivalents (FTEs) as the steady-state staffing level. If there is limited ability to deploy the same people in



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different internal teams, then the KETSA may need 30 to 50 FTEs. Additional staff, contractors, and experts will be required during implementation of the ETS from late 2013 onward

Timeline diagrams and indicators of level of effort for the various capabilities can show how the intensity of KETSA's work will ebb and flow across the compliance year and how staff can be deployed in multiple teams. This will provide important input to the annual process that MEP and Zhasyl Damu use to confirm the terms of reference and budget for administration of the ETS.

Additional resources will need to be available for the receipt and processing of annual reports from the natural resource users and their verifiers. Technical experts can fill short-term gaps while KETSA's full-time staff are trained and expanded. MEP and Zhasyl Damu should combine this analysis with a review of the legislation and regulations to identify dates for key milestones over the ETS compliance year. If the dates in the legislation and regulations can be changed to even out resource requirements, substantial efficiencies in KETSA's operations are possible.



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7. RECOMMENDATIONS AND NEXT STEPS

The ETS Administrator Capability Mapping Project assessed the Kazakhstan ETS Administrator's capability and internal operational requirements and interactions with other government organizations and industry. It also highlighted the challenges and uncertainties MEP and Zhasyl Damu will face in establishment and operations of the Kazakhstan ETS.

The project recommended updating the ETS Legal Package (work is already underway); creating a robust Verification Framework; supporting the first round of Inspections by CERC, accelerating the Registry Deployment, developing Technical Guidance Documents; developing internal capacity, and clarifying Kazakhstan's role and commitments in various International Negotiations.

- Because of the high interdependence in the design of an emissions trading scheme, it is important that efforts proceed on multiple fronts simultaneously to establish a workable scheme and learn from the early experiences.

proposes the timing for the recommendations.

7.1. ETS LEGAL PACKAGE

The existing legislation and government decrees that underpin the ETS do not provide sufficient clarity for ETS participants, verifiers, or the Administrator. Some clauses are particularly difficult, given the way they have been drafted and the implications for operations.

- MEP and Zhasyl Damu are required to submit a package of proposed amendments to the Government by the start of September 2013, including draft amendments to the Ecological Code and the subsidiary legislative instruments.
- Amendments to the existing law are needed to resolve issues that have arisen or are likely to arise and affect the efficiency and effectiveness of the emission trading scheme..
- The opportunity for adoption of amendments to the ETS law and regulations will probably not appear for another year or two, Nevertheless, it is important to draft and analyze the potential for changes now.
- After amendments have been drafted, MEP and Zhasyl Damu should undertake a comprehensive examination of the draft amendments to ensure that the terminology and definitions are consistent and to resolve any conflicts while the draft amendments are being considered by other ministries.



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7.2. VERIFICATION FRAMEWORK

The ETS does not currently have a framework for the interactions between KETSA, the verifiers, and the liable entities.

- A robust approach to verification using external verifiers is needed for the ETS to function properly.
- A verification framework should guide the identification and training of appropriate people to be verifiers, accreditation of companies to provide verification services; engagement with the verification companies, verification processes and the standards that must be used by the verification companies, requirements for reporting and communicating with the KETSA; and performance management processes to ensure high-quality verification.
- MEP and Zhasyl Damu should develop a full verification framework for the ETS, including definition of the relationships among the verifiers, liable entities, and KETSA). This includes establishing guidelines for each activity in the verification process and creating documents and training materials to formalize the verification framework.
- The verification framework process should be developed through a series of workshops with the MEP and Zhasyl Damu team, verifiers, and other stakeholders to examine practical issues, business implications, and risk management approaches.
- The proposed amendments that the MEP and Zhasyl Damu team were preparing in July and August of 2013 were expected to outline the verification framework.

7.3. INSPECTIONS BY CERC

The Committee for Environmental Regulation and Control is the compliance arm of the MEP for a wide range of environmental regulations and permitting of industrial facilities. On July 1, 2013, the CERC began (as of) including the ETS reporting requirements in its regular inspections regime. Zhasyl Damu and CERC were working together to identify priority areas and installations for site visits and inquiries. This process is likely to identify a significant number of non-compliance situations in the first year of the emissions trading scheme. The implications of non-compliance, even in Phase I, are amplified by the linkage between the ETS reporting obligation and a facility's permit to operate. Failure to report GHG emissions could force an installation to cease operations until a permit is issued. .

7.4. REGISTRY DEPLOYMENT

Kazakhstan needs to establish an ETS registry and the timing of the first auctions of quotas (August 2013) poses a major challenge. The IT team at Zhasyl Damu has created a registry for quotas, but it is not ready for online access by stakeholders. Implementation of adequate security provisions for accessing registry accounts is a key challenge for this small organization.

- The existing system could be used a manually approach until Zhasyl Damu can deploy an off-the-shelf registry system. In the interim, account holders could submit quota transactions on the exchange to Zhasyl Damu's Registry Administrator, who could



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adjust the holdings in the respective accounts on the registry in an off-line system. Account holders would not be able to make transfers online and would need to notify the Registry Administrator of any intended transfers.

- Zhasyl Damu should hire a commercial registry provider to deliver an off-the-shelf registry solution. The consultant should work with Zhasyl Damu to tailor it for the Kazakhstan Emission Trading System. The standard, structured approach for systems procurement should be followed, including notifying capable service providers, specifying the requirements, negotiating the contract, guiding the creation and testing of the system, and then deploying the new system.
- The roles and responsibilities of the ETS Administrator and Registry Administrator software provider, account holders, and the support team in the systems procurement process, will all need to be clearly defined.

7.5. TECHNICAL GUIDANCE DOCUMENTS

There is currently some confusion among the liable entities and verifiers on the detailed requirements for data collection, calculations, emission factors, reporting, verification processes, and use of standards. Thus, there is an urgent need to prepare a Kazakhstan Energy and Carbon Technical Manual in Russian.

- This detailed technical guidance is critical for the various people involved at the technical level in the Kazakhstan ETS – the engineers and technicians at the covered installations, the equipment providers, auditors, consultants, and ETS Administrator.
- Specific methods and guidance are required for each of the sub-sectors covered by the ETS. Good progress has been made in preparing guidance for the oil and gas sector, but further work is required to create the comprehensive guidance needed for all o covered installations. Since use of international experts to align the Kazakhstan methods with existing standards and approaches would be highly valuable, this would be a good area for donor support. MEP should identify clear deliverables for donor contributions and
- Collaboration among MEP, the Ministry of Industry and New Technology, and KazEnergoExpertize (a new firm) should be a priority. The technical work would benefit from greater information sharing, given the extensive overlap between the ETS data requirements and the reporting regime under the Law on Energy Savings.

7.6. INTERNAL CAPABILITY BUILDING

Zhasyl Damu, in line with its mandate and funding from MEP, needs to expand its total number of staff and contractors to successfully implement the ETS. New staff will need to be educated on the operations of the ETS and their roles. A variety of specific needs for training and capacity building have been identified during this project, although these will evolve over time:

- Zhasyl Damu personnel need training on verification procedures and reviewing of verification reports. This training is available from online service providers and international experts.



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- Zhasyl Damu needs to enhance and streamline its recordkeeping. The response by companies and the Zhasyl Damu staff to the first reporting deadline (May 1, 2013) revealed weaknesses in the processes of receiving, storing, and reviewing the documents.
- So far, there has been insufficient collaboration between the relevant government and the business sector on ETS issues such as appropriate financial accounting practices, tax treatment of quotas, non-compliance processes, price pass-through provisions, and financial transactions. These issues should be addressed in the package of amendments that MEP must submit by the end of September 2013 and this will require more active collaboration with the Tax Policy Office and accounting standards bodies.
- MEP and Zhasyl Damu accessed to improve their modeling capabilities to produce the national inventory agreed to under the United Nations Framework Convention on Climate Change (UNFCCC). This will be increasingly important as the GoK prepares for the international climate negotiations in 2015. In 2013 and 2014, the GoK should examine Kazakhstan's ability to achieve targets for emissions pathways.

7.7. INTERNATIONAL NEGOTIATIONS

The Government of Kazakhstan's decision to move toward a green economy and its concrete steps to introduce an emissions trading scheme, create an opportunity for the country to play a major role in the upcoming international negotiations.

- It is currently unclear how Kazakhstan fits into the categories of nations under the UNFCCC, including how decisions made in late 2012 apply to Kazakhstan. In the lead-up to the UNFCCC conference in Warsaw, Poland (November 11–23, 2013), the GoK should obtain clarification of this issue and develop a clear strategy
- Kazakhstan also has an opportunity to take on a “bridge maker” role in the upcoming negotiations if it decides that this would be in the national interest). The nation's strong links with Russia, Ukraine, and Belarus, as well as its deep relationships with the United States, the EU, and China, provide Kazakhstan with opportunities to help the negotiations move forward.
- The negotiating team will need training on the key issues and Kazakhstan's positions.
- Since the Kazakhstan delegation will be small, members will need to focus on the most important meetings and be prepared to manage the language barriers since many of the meetings will be in English and may lack interpreters. This is also a consideration in drafting statements or other submissions.
- Kazakhstan should urgently seek to clarify its eligibility under the follow-on to the Kyoto Protocol, and how it can meet the requirements and participate in future agreements or commitment periods.



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Table 3: TIMING ASSOCIATED WITH PROJECT'S RECOMMENDATIONS

| Recommendation | Timing |
|-------------------------------|--|
| ETS Legal Package | <ul style="list-style-type: none"> • Work has already commenced. • June 2013–September 2013. |
| Verification Framework | <ul style="list-style-type: none"> • Outline required for ETS Legal Package work in August 2013. • Full framework by end of 2013. |
| Inspections by CERC | <ul style="list-style-type: none"> • CERC will need to consider cases of non-compliance in August and September 2013 and onward • Training of CERC inspectors on technical issues and carbon accounting principles should be a priority in the fourth quarter of 2013. |
| Registry Deployment | <ul style="list-style-type: none"> • Zhasyl Damu, must formalize and communicate the interim approach in time for the first allocations and auctions of quotas in fall 2013. • Zhasyl Damu should be able to complete the specification, tailoring, testing, and implementation of an off-the-shelf registry in about 12 months. • Zhasyl Damu can achieve real progress in the second half of 2013, followed by full deployment of the registry system in early 2014. |
| Technical Guidance Documents | <ul style="list-style-type: none"> • Work on priority sectors (oil & gas) is underway. • Strong donor support could see more parts of the Technical Manual completed by mid-2014. • A comprehensive set of methods and guidance should be complete by early 2015. |
| Internal Capacity Development | <ul style="list-style-type: none"> • Ongoing capacity development efforts are required. • Additional staff, contractors, and experts will be required in early 2014 to prepare for the next reporting season. • Training of existing and new people must be an ongoing priority, particularly to help retain the highly capable people. • The KETSA should create internal teams and clarify their roles and responsibilities in the first quarter of 2014. |
| International Negotiations | <ul style="list-style-type: none"> • The Kazakhstan negotiating team should prepare its strategy for the Warsaw conference in August and September, 2013. • Discussions with other countries' negotiating teams should begin in October prior to the Warsaw conference. • The negotiating team must clarify how Kazakhstan can demonstrate that it meets the Kyoto Protocol's eligibility requirements. • Kazakhstan will need to identify what it will take to the international meetings on climate change, and what it expects in return. |



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